

Facilities Quarterly

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY ♦ FACILITIES DIVISION NEWSLETTER

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Web-Based Maximo Premieres

A software brand's latest upgrade can sometimes disappoint even its faithful followers, but not so with Maximo 5.2. September 2004 marked the Laboratory's official upgrade from Maximo 4.1.1. Just a few months later, Facilities employees are already benefiting from the change.

One significant change allows users to access Maximo from almost everywhere on the Hill, and, by using Virtual Private Network (VPN) software, from campus, home, or off site. Because Maximo 5.2 is Web server-based, in contrast to 4.1.1., which was Windows Client Server-based, "Our users can now get to Maximo using Internet Explorer, so they're not restricted to a computer configured for Maximo," explains John Pon of MIS. Version 5.2 is currently available to Facilities employees using Internet Explorer.

To prepare the Lab to adapt to 5.2, Ken Fletcher, George Ames, Larry Begley, John Hutchings, Jim Murphy, Tammy Thompson, John Tully, Lisa Sang-

master, and Bruce Simpson performed a fit/gap analysis in which they examined how upgrading to 5.2 functions would change (and improve) the Laboratory's business processes. They then performed functional tests where they "... looked at every screen of 5.2 to see how it would apply to Laboratory operations," explains Fletcher. Fletcher and his team also wrote test scripts (based on the Lab's business processes) to gauge how they would use Maximo from day to day, and to test and validate the fit/gap analysis.

Maximo is used by Facilities to run the Laboratory's plant operations, and it's used to run Central Stores "like a mini Home Depot," explains Pon. When a user "buys" materials, Stores' material "issues" are recorded in Maximo. Maximo also helps the Facilities Work Request Center record and process service requests for the entire Laboratory. A wide range of service re-

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Facilities Profile: Stephanie Martinez

Stephanie Martinez came to Berkeley Lab as a bus driver on August 16, 2000. She remembers the date as if it were a day of liberation. In her previous position, her workday was supposed to end at 3:00 pm. Instead, she found that "you work from seven, six, five in the morning to seven, eight, nine at night. I tried to explain to them that I need to be off at that time, and they tried to accommodate me, but it didn't work. So I started looking for another job. I came home on a Friday so disgusted and opened up the paper, and there was this position at Berkeley Lab for a bus driver."

Former Bus Services supervisor Tammy Brown, who is now head of Transportation Ser-

vices, saw something in Stephanie beyond her experience as a bus driver. "I just had a permit, not a regular class B license, but Tammy gave me the interview and trusted in me that I could really do the job on a permit." That extra something might well have been what Stephanie calls a "caring heart." As she explains, "The most important qualities for a bus driver are caring, respect, people skills. You just have to have a caring heart. A caring heart makes services run smoothly." This is

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<http://fac.lbl.gov/Facilities>.

Web-Based Maximo Premiers *continued from page 1*

quests—from clearing clogged drains, and repairing overhead lighting to requesting a remodel—are recorded in Maximo.

Like Version 4.1.1, 5.2 can also catalog the Laboratory's numerous work safety and lockout/tagout (LOTO) procedures. For the Facilities Division, which comprises a wide array of services and shops, documenting safety plans assures that everyone has access to approved safety pro-

cedures and can save time for new employees down the line. According to Fletcher, "In Facilities, we're using LOTO safety plans for equipment repairs. For example, when repairing rooftop air conditioners, there are procedures for locking the system out and identifying possible hazards." So far, Facilities has developed 1,340 LOTO safety plans.

Version 5.2 will also help Facilities continue to help Facilities manage

and maintain computers and equipment. Through Maximo, you can document the specifications of a user's computer (such as the system's make, model, memory capacity, hard-drive space, and monitor type), the location and custodian of the computer, and its maintenance schedule. The process is quite simple: each piece of hardware is tagged with a barcode number. Facilities then scans this number into Maximo, where administrators link each piece to a particular user and location. According to Pon, in addition to the 280 desktop and laptop computers and 40 networked printers, approximately 20,000 pieces of operating equipment are inventoried and maintained using Maximo. Fleet Services also uses Maximo to track the mileage and service schedules of 300 GSA vehicles.

Project managers will appreciate another 5.2 feature. Like other service organizations at the Laboratory, "many of Facilities' requests from customers begin and end within a day," explains Fletcher. "Facilities managers need to know what work is in the queue and to see where they are on a schedule and a budget." In addition, "a vision for Maximo is it will be a repository and official record of time worked and projects charged," says Pon.

While change is never easy, Facilities employees have adapted quite well to the latest Maximo release. "I'm very proud of the way that the staff has adapted to the new implementation," says Fletcher, who, as the Maximo 5.2 implementation's Functional Project Manager, has been involved in ensuring that users get the retraining necessary to transition from old to new. According to Fletcher, Facilities employees can now use computer based training for self-paced tutorials to ease the transition.

Contact John Pon (x7935) or Ken Fletcher (x5770) for questions regarding the Maximo 5.2 implementation. For Maximo tips and help, contact Marjorie Allen (x7699).

— Theresa Duque

FROM THE DIVISION DIRECTOR...

Welcome to daylight savings time, income taxes, and this fresh issue of the Facilities Quarterly. In the last issue, I shared my observations on the tragic accidents at Savannah River and SLAC; this issue will also begin with my continuing concerns for the safety of our workforce and of our contractors. By now, all of you should be aware of Director Chu's personal message to the Laboratory in the special edition of Today at Berkeley Lab for April 7, 2005. This message captures much of my personal view on the current upswing in work injuries at the Laboratory and especially within Facilities. It was for this reason that I called for a Facilities management stand down on April 6, 2005, during which Director Chu and Associate Lab Director McGraw joined me in a frank discussion of our collective safety concerns with the Facilities leadership team. We all need to redouble our efforts in making this a safe and productive workplace. Most importantly, we all need to strive to make awareness our watchword every day when we come through the gate. It is not enough to have safety meetings, posters, inspections and other reminders; we need to think and act with the singular focus on preventing work injuries.

This morning I had a discussion with a staff member who shared his concern over the recent surge in accidents. He expressed some frustration as to how we were going to close the gap and eliminate injuries caused by inattention. I gave him the analogy of threading a bolt into a fitting; the more progress you made, the more resistance you encountered. From finger-tight to the last few turns of the wrench, more effort was required as the remaining distance grew smaller. The final quarter turn was always the hardest, but without it, the bolt would eventually work loose and the fitting would fail. This is where we are at today. In spite of all of our progress, we need to make the final turn with the wrench or our progress will all be undone as the safety bolt begins to work itself loose with the pressures and stress of everyday work.

Please join me in being extra-vigilant, watching out for your co-workers, and proactively reporting any situations that you believe might create a work hazard. The future of Berkeley Lab depends on our ability to demonstrate that we are capable of supporting the best in science with the safest of work environments.

George Reyes

New Monitors Save Energy, Space, Sight

Berkeley Lab has a special responsibility to lead the way in energy efficiency and conservation. Over the years, Facilities has always taken this responsibility seriously, providing controls engineering for all construction projects, enforcing state and federal energy efficiency requirements, carrying out retrofit studies for lighting and other systems, performing use analysis and recharge, and enhancing employee energy awareness.

Most recently, the Facilities MIS group has trimmed nearly 27,000 kilowatt-hours (kWh) from the Lab's yearly electric bill by replacing the Division's old CRT monitors with flat-panel LCD displays. According to Utilities Group energy analyst Syed Ali, the new monitors use 21.4 watts, compared with 87.57 watts for a typical Sony

Trinitron CRT, a difference of 66.17 watts. Multiply that by 281 new monitors and 1440 average hours of usage per year, and the savings come to 26,775 kWh.

Although the annual cost saving, \$2,824.77, may not seem like much, Facilities MIS manager John Pon points out that, "Saving energy is important. Every watt we don't use is a watt the US doesn't need to replace." The new units replace monitors that were from three to five years old, and, according to Pon, offer other advantages in addition to their energy efficiency. "LCDs are space efficient. We free up valuable room for many staff, allowing them more workspace... and LCDs don't flicker, making them more user friendly for staff...an ergo plus."

COMPLIMENTS

Berkeley Lab's shuttle fleet provides special services for conferences, transporting attendees from their hotels to Berkeley Lab, and to onsite and offsite conference venues. Transportation Superintendent Tammy Brown has a talent for solving the logistics of moving Berkeley Lab's guests from point A to point B with the minimum of hassle, as Bill Johansen of the Business Services Division attests: "When Berkeley Lab hosted the Council of UC Staff Assemblies (CUCSA) meeting on September 3, Tammy Brown made setting this up as straightforward as possible, which allowed me to focus on other aspects of putting the meeting together. This was a great relief. The two drivers -- Sandy Bell and Ralph Sallee -- were incredibly patient and flexible while I rounded everyone up and got them on-board. Thanks to all for their help. CUCSA includes representatives from all of the UC Campuses, LANL, LLNL, and UCOP and they all came away impressed with LBNL."

In his 10 years as Move Coordinator, Ron Woods has earned many letters of gratitude from relieved clients for arranging a smooth transition to a new office or laboratory. Most recently, he and his crew received praise for work at Building 71 and at JGI in Walnut Creek. Olivia Wong of the Center for Beam Physics commends Woods' "excellent service...for a furniture move & installation request. This request involved coordination of the transportation, labor, and carpenter crew, and making sure a furniture modular unit fits into the new room....Ron oversaw the whole assignment and superbly orchestrated the work flow of his staff. Everything went smoothly and in a timely fashion. Ron was also able to provide pieces missing from the furniture unit so that installation could be completed."

JGI Finance & Materials Manager Sandra McFarland, JGI Facilities Manager Greg Stanley and JGI Shipping/Receiving supervisor Ron McKeever, join in praising Woods' team for its work rearranging and reorganizing the JGI warehouse (Building 501A) and shipping out excess property to the Building 903 warehouse. Also participating in the project were Transportation's Jim Martinez, Scott Holbein, Shelly Carras, and Ron Bailey, and carpenters Rod Bennett, Harry Bash, and Joe Herrera.

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WORK REQUEST CENTER

| | |
|-----------|------------------|
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WRC welcomes questions or comments about Facilities Quarterly.

SAFETY CORNER: Hoist and Crane Safety

As part of the recent safety stand-down at Stanford Linear Accelerator Center (SLAC), Facilities Technical Services Manager Dennis Nielsen and Rigging Supervisor Kevin Trigales participated in a review of SLAC's hoisting and rigging procedures, preparatory to the accelerator lab's resuming normal operations. According to Nielsen, "The task was to recommend a plan to return to work. We provided that." In addition Nielsen and Trigales returned to Berkeley Lab with a renewed focus on crane and rigging safety.

Nielsen sees his time at SLAC as having been an "...opportunity to experience someone else's operating environment. Doing that, you have to step back and say, 'are we doing the best we can do—following all procedures with 100 percent compliance?'"

With that question in mind, Matt Kotowski of the EH&S Occupational Safety Group, along with Nielsen, Trigales, and the Crane and Elevator Office's Steve Wright, decided to carry out a comprehensive review of Berkeley Lab's crane safety posture. The purpose was to ensure that the Lab is working to the letter of the procedures established in PUB-3000. As Wright remarked, "We figured if we're going to tell them [SLAC] how to run their program, then our skirts should be just as clean."

Over the last several months, Wright has been responsible for carrying out the review. According to Nielsen, "Steve's been looking at the SLAC findings and following up to make sure we're doing what we say we're doing." Now complete, the review covered 465 separate pieces of crane equipment, as well as hundreds more secondary lifting devices, such as spreader bars, slings, and other "below the hook" equipment.

Wright's inspection turned up only a few easily replaceable items

such as slings, shackles, and swivel bolts that needed to be taken out of service. According to Trigales, there are several criteria that could have required rejection of equipment. For example, gear is suspect if it has been modified by painting, welding, or other means. Painting can hide defects or obscure stenciled-on load capacities. Welding can weaken the metal in a hook or strongback so that it can't perform at its rated capacity. Modifications such as cutting away part of a hook can also reduce lifting capacity. Tonnage capacity must be stenciled on the fixture. Wire ropes must be lubricated to prevent abrasion as the wire strands bind on each other. On a new rope, this is provided by a lubricating core. Older ropes must be regularly lubricated, or "sloshed." Like the cranes, the ropes need to be "exercised" periodically to prevent degradation.

That Wright's inspection turned up so few defective pieces of equipment attests to the effectiveness of the Lab's hoist and crane oversight program. The Crane and Elevator Office, under Electrical Construction Group Lead Bill Mattson, has overall responsibility for the safety of the Lab's crane/hoist operations. This includes training crane operators, inspecting and maintaining equipment, providing oversight, and consulting on critical lifts.

Maintenance is handled by Berkeley Lab's crane service contractor, Crane America Services, which is responsible for ongoing maintenance and repair of all the Lab's lifting devices that travel along two or more axes. According to Trigales, this is a never-ending job. Every 90 days, Crane America verifies that all controls function and are properly marked, that crane hardware such as hooks and blocks are in good order, that all parts are lubricated that need

it, and that load attaching devices, such as hooks, are not deformed or damaged. A yearly service inspection ensures that the equipment is in good working order, and, every four years, all hoists and cranes undergo a proof-load test.

Operator training, although an EH&S program, is carried out by Crane and Elevator Office personnel. All crane and hoist operators must take both classroom and practical training every three years. Training conforms with all DOE, OSHA, Cal-OSHA and ANSI rules, and is tailored to the type of equipment that individual operators are using—from the ALS bridge crane, which can hoist 15,000-kg shielding blocks, to small hoists in shops and labs sitewide.

Coursework covers such topics as completing daily inspection tags; how to interpret proof load tags on cranes; use of secondary lifting equipment such as eyebolts, strongbars, and slings; how to verify the weight of a load; and how to verify the strength of a load's attachment points, find its center of gravity, and stop it from swinging. The practical portion of the training includes an exam in which the trainee must demonstrate acceptable handling of the equipment he or she will be using. Training also covers forklifts and aerial work platforms.

The Crane and Elevator Office handles all crane procurement and documentation for the Lab. All purchases of lifting equipment must be made through the Hoist and Crane office. This ensures that certification documenting the equipment will be obtained and properly filed. This also protects against the dangers of unauthorized purchases, such as counterfeit bolts.

Over many years, Berkeley Lab's

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ON THE DRAWING BOARD

projects in study or conceptual design

Animal Care Facility

A new building is being planned for a site in the Life Sciences Research Cluster in the East Canyon. The building will contain space for animal holding and support functions. This project is proposed for GPP funding in FY 2005 and FY 2006. (Richard Stanton, x6221)

Computational Research and Theory Building

Plans for a new Computational Research and Theory Building are underway. The building will provide space for high-performance computing tools and expertise that will enable interdisciplinary teams of scientist to attack fundamental problems in science and engineering

that require massive calculations. The building will be located on the Lab site, possibly near the 50/70 complex and contain approx. 150,000 gross sq ft (14,000 gross sq meters). (Kirk Haley, x4171)

User Support Building

This 30,000-sq-ft (2800 sq-meter) building will be located on the site of the current Building 10. The project will be double the size of Building 10 and provide modern research support space and offices. The USB will support researchers at all of LBNL's User Facilities and provide additional staging area for ALS experiments. (Richard Stanton, x6221)

IN PROGRESS

funded projects

Blackberry Gate Improvement Project

This project will upgrade the Blackberry gate to improve security, customer service, and safety of the security officers. It will provide more efficient processing of vehicles and pedestrians entering the Lab. Construction start is scheduled for Summer 2005.

(Kirk Haley, x4171)

Building 77: Rehabilitation of Building Structure and Systems, Phase 2

This project will correct mechanical, electrical and architectural deficiencies in Buildings 77 and 77A. Design is underway. (Richard Stanton, x6221)

Building 90: HVAC Upgrade Project

This project used a technology invented by EETD scientists to seal leaks totalling approximately 10,000 cubic feet per minute (cfm) in the building HVAC system. Follow-up work is in progress, with completion expected in April. (Marty Baron, x4135)

Molecular Foundry

Berkeley Lab's newest User Facility, the Molecular Foundry, is under construction near the Building 72 complex. It will consist of a research building of about 89,000 gross sq ft (8300 gross sq meters) and a utility center of about 6,000 gross sq ft (560 gross sq meters). The research building will have state-of-the-art clean rooms for the design, modeling, synthesis, processing, fabrication and characterization of novel molecules and nanoscale materials. Offices and laboratories will support nanoscale research in materials science, physics, chemistry, biology, and molecular biology. Construction of the Molecular Foundry began in December 2003. The structural steel was topped off in December, with welding completed in February. The exterior skin started in March with a planned completion in July. Energizing of the new substation is scheduled for May. See the Foundry Construction Project website at <http://fac.lbl.gov/foundryproject/> for up-to-date information. (Joe Harkins, x7486)

Stephenie Martinez *continued from page 1*

a philosophy that Stephanie practices off the job, too. As an active member of the Eastern Star fraternal organization, Daughters of Isis, and other charities, she helps raise money for a number of causes and works with youth in Berkeley.

Of her new position she says, "My first week was a tidal wave, but I survived and it's a lot calmer." She says, in fact, that she's had fun learning her new job, which includes setting the lab's monthly bus schedule, arranging buses for tours and visitors, juggling assignments to cover vacation and sick leave, accommodating overtime needs, preparing reports, and, of course, keeping the buses on schedule.

"I like a variety of things so in the process of learning it doesn't seem that difficult for me. I guess it will when we have that chaotic day when there are four drivers that haven't come in and we have two tours scheduled and you've got a driver that wants to go home—that's when the scheduling would be the difficult problem."

The bottom line for bus services is meeting the needs of its Laboratory customers. Stephanie says that although tours are usually scheduled a week or two, or sometimes months, in advance, there's no rule. "They can call today and ask for one this afternoon and then we try our best to accommodate them—even if that means asking someone to stay over-time just to meet the need."

As for the future of Bus Services, Stephanie says, "There are some things that we're addressing to make the bus service more efficient. We're looking at a lot of things—what could be more efficient, cost effective, passenger friendly." As for her own future, she says, "When I came here I told my supervisor I came here to retire. I'm not going anywhere, and

so this was in my wildest dreams to be the supervisor. I just hope that what I bring will make a difference in Bus Services."

SAFETY CORNER

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hoist and crane program has set the standard for the DOE Office of Science. The benefit has been a low incidence of injuries and of damage to equipment. If this doesn't seem like justification enough though, consider the alternative, as Kevin Trigales describes it: "If anything happens here we could be shut down just like SLAC." Adds Dennis Nielsen, "The last thing you want is something that will shut down your science program."

COMPLIMENTS *continued from page 3*

It is a corollary of Murphy's Law that most plumbing emergencies occur on weekends and holidays. This was demonstrated over Presidents Day weekend when a water heater in Building 75B burst, soaking the floor and leaving occupants without hot water on Tuesday morning. According to EH&S Radiation Control Manager Gary Zeman, the Facilities team of Tom Reese, John Souza, Butch Holeman and Roger Deaver "...came to our rescue," replacing the 10-gal, 1978-vintage unit with a 12-gal model. Meanwhile, the custodians moved in with wet vacs and fans to dry out the carpet. Zeman was impressed not only by the cleanup and the replacement job, which "...were handled professionally and in a very timely manner," but also by the Facilities team's safety-consciousness. When Zeman saw the Fire Department leaving the scene, he asked plumber Roger Deaver why they had been there. "His reply," recounts Zeman, "was that every time he lights his torch he is required to call them for a fire watch. What he said next was a real credit to the safety culture we have been trying to instill at LBNL. He said he is glad to call the Fire Department because it not only is it the right thing to do for safety, but also it gives him a chance to educate the firemen on the equipment installed in the various buildings and labs!"

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